

Remarks/Arguments

In the reply, claims 1-5, 7-11, 15-19, 21-25, and 29-31 have been amended, while claims 6 and 20 have been cancelled. The claim amendments are fully supported in the originally filed specification and no new matter has been added.

Rejections under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-11, 15-25, and 29-31 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent App. Pub. No. 2003/0087673 to Walton et al. ("*Walton*") in view of U.S. Patent App. Pub. No. 2005/0233760 to Voltolina et al. ("*Voltolina*"). Applicant respectfully requests reconsideration of this rejection for at least the following reasons.

As for claim 1, claim 1 currently recites:

A method, comprising:

- operating in a multiple input, multiple output (MIMO) mode by a transmitter device of a wireless network to communicate with a receiver device of the wireless network, the wireless network including at least one transmitter device and a plurality of receiver devices;

- observing both physical (PHY) layer performance of the receiver device and media access control (MAC) layer performance of the transmitter device; and

- the transmitter device switching from operating in the MIMO mode to operating in a spatial division, multiple access (SDMA) mode to communicate with the plurality of receiver devices including the receiver device, when poor MAC layer performance below a MAC layer performance threshold is observed for the transmitter device, even though good PHY layer performance above a PHY layer performance threshold is observed for the receiver device.

In the Final Office Action mailed on May 18, 2007, the Examiner cites the combination of *Walton* and *Voltolina* as teaching each and every feature of previously presented claim 1. In particular, *Walton* appears to teach a transmitter device (i.e., base station 104) of a wireless network switching between operating in a MIMO mode to operating in an N-SIMO mode (which the Examiner equates to SDMA mode as recited in the claims) only when certain observed performance parameters fall short of desirable performance levels (e.g., the observed SNR, QoS, maximum latency, or

average data rate is or are not acceptable). See, for example, paragraphs [0039] to [0041] of *Walton*. Meanwhile, *Voltolina* merely teaches a wireless network switching between operating in a point-to-point distribution to operating in a point-to-multipoint distribution when certain conditions arises such as when the number of user terminals is greater than or below a predetermined number. However, the combination of *Walton* and *Voltolina* **does not** teach or even suggest the features “observing both physical (PHY) layer performance of the receiver device and media access control (MAC) layer performance of the transmitter device; and the transmitter device switching from operating in the MIMO mode to operating in a spatial division, multiple access (SDMA) mode to communicate with the plurality of receiver devices including the receiver device, when poor MAC layer performance below a MAC layer performance threshold is observed for the transmitter device, even though good PHY layer performance above a PHY layer performance threshold is observed for the receiver device” as recited in amended claim 1. For at least this reason, amended claim 1 is patentable over *Walton* in view of *Voltolina* under 35 U.S.C. § 103.

Amended independent claim 15 has features similar to those of amended claim 1. Thus, for the reasons that claim 1 is patentable over *Walton* in view of *Voltolina*, as described above, claim 15 is likewise patentable over *Walton* in view of *Voltolina*.

Amended independent claims 7, 21, and 29 have features similar to those of amended independent claims 1 and 15 except that these claims include features that call for switching from SDMA to MIMO instead of the other way around as recited in claims 1 and 15. Thus, for at least the same reason that claims 1 and 15 are patentable over *Walton* in view of *Voltolina*, claims 7, 21, and 29 are likewise patentable over *Walton* in view of *Voltolina*.

Amended claims 2-5, 8-11, 16-19, 22-25, and 30-31 depend from amended independent claims 1, 7, 15, 21, and 29, incorporating their recitations. Thus, for at least the reasons that claims 1, 7, 15, 21, and 29 are patentable over *Walton* in view of *Voltolina*, as described above, claims 2-5, 8-11, 16-19, 22-25, and 30-31 are likewise patentable over *Walton* in view of *Voltolina*.

CONCLUSION

In view of the foregoing, Applicant respectfully submits that all pending claims are in condition for allowance. Early issuance of the Notice of Allowance is respectfully requested.

Please charge any shortages and credit any overages to Deposit Account No. 500393.

Respectfully submitted,
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